

CLAIMS:

1. A machine suitable for placing a component on a substrate, the machine comprising an imaging device, a placement element connected to the imaging device, as well as an optical system for detecting the position of the component supported by the placement element by means of the imaging device, characterized in that the optical system comprises at least a marking element, in which, in operation, the marking element and the component can be displayed simultaneously by means of the optical system in an image to be made by means of the imaging device.
2. A machine as claimed in claim 1, characterized in that the machine comprises at least a calibration marking element, in which the marking element is located in a first focal plane whereas the calibration marking element is located in a second focal plane, which marking elements, in operation, can be displayed simultaneously in an image to be made by means of the imaging device.
3. A machine as claimed in one of the preceding claims, characterized in that the placement element comprises a marking element connected to the placement element which marking element, in operation, can be displayed simultaneously with the component in an image made by means of the imaging device.
4. A machine as claimed in claim 3, characterized in that the marking element connected to the placement element can be optically displayed in a plane in which there is a component during operation.
5. A machine as claimed in one of the preceding claims, characterized in that the imaging device comprises a marking element connected to the imaging device, which marking element, in operation, can be displayed simultaneously with the marking element connected to the optical system in an image made by means of the imaging device.

6. A method for placing a component on a substrate by means of a machine, the component being picked up by means of the placement element, then by means of an image device and an optical system an image being made of the component picked up by the placement element, after which the component is placed on the substrate, characterized in that in the image a marking element connected to the optical system as well as the component is displayed after which the position of the component relative to the optical system is determined by means of the marking element.
7. A method as claimed in claim 6, characterized in that a further image is made by means of the imaging device, from which further image the desired position of the component on the substrate is determined, after which the component is placed in the desired position.
8. A method as claimed in claim 6 or 7, characterized in that the machine comprises a calibration marking element, in which the marking element is located in a first focal plane, whereas the calibration marking element is located in the second focal plane, which marking elements, in operation, can be displayed simultaneously in an image to be made by means of the imaging device.
9. A method as claimed in one of the preceding claims 6-8, characterized in that the placement element comprises a marking element rigidly connected to the placement element, which marking element, in operation, can be displayed simultaneously with the component in an image made by means of the imaging device.
10. A method as claimed in one of the preceding claims 6-9, characterized in that the imaging device comprises a marking element connected to the imaging device which marking element, in operation, is displayed simultaneously with the marking element connected to the optical system in an image made by means of the imaging device.